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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,210	04/19/2001	Masanori Ogura	35.C15304	6939

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EXAMINER

BAUMEISTER, BRADLEY W

ART UNIT PAPER NUMBER

2815

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/837,210

Applicant(s)

OGURA ET AL.

Examiner

B. William Baumeister

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 10-12, 17-19, 21, 32, 34, 37 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 10-12, 17-19, 21, 32, 34, 37 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of the claims is withdrawn in view of Applicant's broadening amendments to the independent claims. Rejections based on the previously cited reference(s) follow.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 10-12, 17-19, 21, 32, 34, 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takemoto et al. '048 in view of Applicant's prior art admissions for the reasons set forth previously and as follows.

a. As was explained in previous Office actions, Applicant acknowledges that it was known to provide red, green and blue detector arrays adjacently wherein each array is provided with a respective color filter of a single color and a focusing lens, and wherein the number of sides of the arrays is the same as one another (e.g., prior-art FIG 11). Applicant does not acknowledge that it was known to provide such sets of arrays in a common well. Takemoto teaches color photodetector arrays wherein the red, green and blue detection regions are integrated into a common well. It would have been obvious to the skilled artisan to have incorporated the teachings of Takemoto and Applicant's

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Admitted prior art so as to integrate the prior-art arrays into a common well for the purpose of increased integration/miniaturization.

b. Further, Takemoto teaches a well contact and wiring located at the periphery of the common well. As was previously explained, it would have been obvious to one of ordinary skill in the art at the time of the invention have provided plural contacts at multiple positions along the periphery of the common well. This is based upon the previously explained proposition that, and the underlying rationales for why, the duplication of parts was obvious in the present case.

c. The claims previously recited that the wiring and contacts be disposed on at least three sides of the picture cell arrays. It was the examiner's position that it may have been obvious to (1) duplicate the wiring and contacts around the periphery because Takemoto specifically teaches a contact and wiring disposed at the periphery, and (2) that it would have generally been obvious to provide additional contacts and wirings at additional positions within the array's interior, but that there was not sufficient motivation to provide these additional interior contacts/wirings specifically along the interior boundaries of the adjacent 2D arrays. Restated, using Applicant's FIGs 2A and 6 as examples, Takemoto in combination with Applicant's prior art FIG 1 would have rendered obvious the inclusion of the exterior wiring/contact ring 11/12. But absent some additional, more specific prior art teachings to do so, it would not have been obvious to further include the additional portion of the wiring/contact line(s) 11/12 that extend across the interior, between the adjacent arrays. As such, it would not have been

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reasonably obvious to provide the wiring/contacts adjacent to at least three sides of each of the arrays.

d. However, as applicant has presently broadened the claims to now only require that the "number of sides of each color picture cell at which sides the well contacts were set are the same as one another" (see independent claims 11 and 21), the claims now read on a group of four cell arrays located in a common well and surrounded by an exterior ring bus contact/wiring layer—without the further inclusion of any interior contact/wiring layers. Or restated, the claims read on a set of four picture sell arrays wherein only two sides of each cell have well contacts/wirings. As such the claims—including the dependent claims for the additional respective reasons previously set forth—are now obvious.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. William Baumeister whose telephone number is (571) 272-1722. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**SHADLEY BAUMEISTER
PRIMARY EXAMINER**



B. William Baumeister
Primary Examiner
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July 6, 2004